

## CLAIMS

1 1-32. (canceled)

1 33. (currently amended). A network device for a communication network, the network device  
2 comprising:

3 (a) a database table adapted to[[[:]] [[(1)]]] store one or more sets of one or more  
4 parameters, each set corresponding to a different identifier; and  
5 ~~(2) allow updating of a first set of one or more parameters, the first set~~  
6 ~~corresponding to a first identifier, wherein the updating is based on data packets received from a~~  
7 ~~first transmitter corresponding to the first identifier; and~~

8 (b) a receiver adapted to:  
9 (1) receive a first data packet from [[the]]~~a~~ first transmitter, the first data packet  
10 comprising a header and a payload;  
11 (2) receive a first auxiliary coding corresponding to the first data packet, wherein:  
12 the first auxiliary coding identifies [[the]]~~a~~ first identifier;  
13 (3) recover the first identifier from the first auxiliary coding;  
14 (4) retrieve [[the]]~~a~~ first set of one or more parameters from the database table  
15 based on the first identifier; and  
16 (5) process at least a portion of the first data packet based on the first set of one or  
17 more parameters[[;]]  
18 ~~(6) update the first set of one or more parameters based on the processing; and~~  
19 ~~(7) provide to the database table, for storage, the updated first set of one or more~~  
20 ~~parameters.~~

1 34. (previously presented) The network device of claim 33, wherein the communication network  
2 is a HomePNA network.

1 35. (previously presented) The network device of claim 33, wherein:  
2 the first data packet further comprises a training preamble;  
3 the first auxiliary coding is inserted within the training preamble of the first data packet.

1       36. (previously presented) The network device of claim 33, wherein:

2           the first data packet further comprises a training preamble;

3           the first auxiliary coding is encoded using frequency shift keying (FSK) modulation by

4       frequency division;

5           the first auxiliary coding is encoded at a frequency different from a frequency for the first

6       data packet;

7           receipt of the first auxiliary coding overlaps in time with receipt of the training preamble

8       of the first data packet.

1       37. (previously presented) The network device of claim 33, wherein the first auxiliary coding is

2       received before the first data packet is received.

1       38. (currently amended) The network device of claim 33, further comprising a second transmitter

2       adapted to:

3           (1) generate a second auxiliary coding for transmittal with a second data packet, wherein:

4                  the second auxiliary coding identifies a second identifier;

5                  the second identifier identifies the second transmitter; and

6                  the second auxiliary coding is different from the second data packet;

7           (2) transmit the second auxiliary coding and the second data packet to a second network

8       device.

1       39. (currently amended) The network device of claim 38, wherein:

2           the second transmitter comprises a first RF front end; and

3           the second transmitter is adapted to transmit both the second auxiliary coding and the

4       second data packet using the first RF front end.

1       40. (currently amended) The network device of claim 38, wherein:

2           the second transmitter comprises a first RF front end and a second RF front end;

3           the second transmitter is adapted to transmit the second auxiliary coding using the first

4       RF front end; and

5           the second transmitter is adapted to transmit the second data packet using the second RF  
6 front end.

1       41. (previously presented) The network device of claim 33, wherein the first auxiliary coding  
2 comprises five or fewer symbols.

1       42. (previously presented) The network device of claim 33, wherein the first auxiliary coding  
2 comprises five or fewer bits.

1       43. (previously presented) The network device of claim 33, wherein the first identifier is a station  
2 identifier for the first transmitter.

1       44. (previously presented) The network device of claim 33, wherein:  
2           the first data packet header includes a source address for the first transmitter; and  
3           the first identifier is not the same as the source address for the first transmitter.

1       45. (previously presented) The network device of claim 33, wherein the first set of one or more  
2 parameters comprises at least one of a receiving-equalizer start value, a timing-recovery start  
3 value, an automatic-gain-controller start value, and an echo-canceller start value.

1       46. (currently amended) The network device of claim 33, wherein the updating the first set of  
2 one or more parameters is based on moving averages, from past data packets received from the  
3 first transmitter, of one or more of a receiving-equalizer value, a timing-recovery value, an  
4 automatic-gain-controller value, and an echo-canceller value.

1       47. (previously presented) The network device of claim 33, wherein:  
2           the first auxiliary coding is received as a first set of pulses received substantially  
3 immediately before the first data packet; and  
4           the first identifier is encoded in the first set of pulses by variable timing intervals between  
5 adjacent pulses in the first set of pulses.

1    48. (currently amended) The network device of claim 33, wherein the database table is further  
2    adapted to store ~~the first~~ each different identifier corresponding to each set of one or more  
3    parameters.

1    49. (currently amended) A method for a network device for a communication network, wherein  
2    the network device comprises a database table and a receiver, the method comprising:

3                 (1) storing a first set of one or more parameters in the database table, the first set  
4    corresponding a first identifier;

5                 (2) receiving a first data packet comprising a header and a payload from a first  
6    transmitter;

7                 (3) receiving a first auxiliary coding corresponding to the first data packet, wherein:  
8                         the first auxiliary coding identifies the first identifier;

9                 (4) recovering the first identifier from the first auxiliary coding;

10                 (5) retrieving the first set of one or more parameters from the database table based on the  
11    first identifier; and

12                 (6) processing at least a portion of the first data packet based on the first set of one or  
13    more parameters[[;]]

14                 ~~(7) updating the first set of one or more parameters based on the processing; and~~

15                 ~~(8) providing to the database table, for storage, the updated first set of one or more  
16    parameters.~~

1    50. (previously presented) The method of claim 49, wherein the communication network is a  
2    HomePNA network.

1    51. (previously presented) The method of claim 49, wherein:

2                 the first data packet further comprises a training preamble;

3                 the first auxiliary coding is inserted within the training preamble of the first data packet.

1    52. (previously presented) The method of claim 49, wherein:

2                 the first data packet further comprises a training preamble;

3           the first auxiliary coding is encoded using frequency shift keying (FSK) modulation by  
4 frequency division;

5           the first auxiliary coding is encoded at a frequency different from a frequency for the first  
6 data packet;

7           receipt of the first auxiliary coding overlaps in time with receipt of the training preamble  
8 of the first data packet.

1       53. (previously presented) The method of claim 49, wherein the first auxiliary coding is received  
2 before the first data packet is received.

1       54. (currently amended) The method of claim 49, where the network device further comprises a  
2 second transmitter, the method further comprising:

3           (1) generating a second auxiliary coding for transmittal with a second data packet,  
4 wherein:

5           the second auxiliary coding identifies a second identifier;

6           the second identifier identifies the second transmitter; and

7           the second auxiliary coding is different from the second data packet;

8           (2) transmitting the second auxiliary coding and the second data packet to a second  
9 network device.

1       55. (currently amended) The method of claim 54, wherein:

2           the second transmitter comprises a first RF front end; and

3           the method comprises transmitting both the second auxiliary coding and the second data  
4 packet using the first RF front end.

1       56. (currently amended) The method of claim 54, wherein:

2           the second transmitter comprises a first RF front end and a second RF front end; and  
3           the method comprises:

4           transmitting the second auxiliary coding using the first RF front end; and  
5           transmitting the second data packet using the second RF front end.

1    57. (previously presented) The method of claim 49, wherein the first auxiliary coding comprises  
2    five or fewer symbols.

1    58. (previously presented) The method of claim 49, wherein the first auxiliary coding comprises  
2    five or fewer bits.

1    59. (previously presented) The method of claim 49, wherein the first identifier is a station  
2    identifier for the first transmitter.

1    60. (previously presented) The method of claim 49, wherein:  
2         the first data packet header includes a source address for the first transmitter; and  
3         the first identifier is not the same as the source address for the first transmitter.

1    61. (previously presented) The method of claim 49, wherein the first set of one or more  
2    parameters comprises at least one of a receiving-equalizer start value, a timing-recovery start  
3    value, an automatic-gain-controller start value, and an echo-canceller start value.

1    62. (currently amended) The method of claim 49, wherein the updating the first set of one or  
2    more parameters is based on moving averages, from past data packets received from the first  
3    transmitter, of one or more of a receiving-equalizer value, a timing-recovery value, an automatic-  
4    gain-controller value, and an echo-canceller value.

1    63. (previously presented) The method of claim 49, wherein:  
2         the first auxiliary coding is received as a first set of pulses received substantially  
3         immediately before the first data packet; and  
4         the first identifier is encoded in the first set of pulses by variable timing intervals between  
5         adjacent pulses in the first set of pulses.

1    64. (previously presented) The method of claim 49, further comprising storing the first identifier  
2    in the database table.

1    65. (new) The network device of claim 33, wherein the first set of one or more parameters is  
2    based on previously performed training results from a previous packet received from the first  
3    transmitter.

1    66. (new) The method of claim 49, wherein the first set of one or more parameters is based on  
2    previously performed training results from a previous packet received from the first transmitter.